HW #1-6, 7, 8, 11

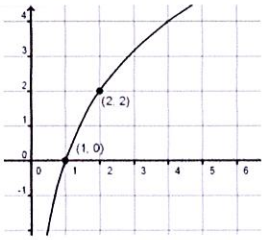
Name: Date: Period:

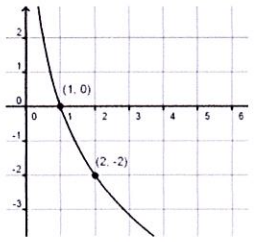
Practice Worksheet: Graphing Logarithmic Functions

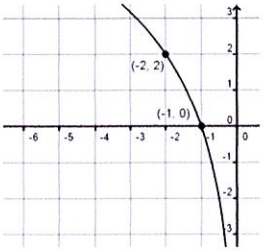
Without a calculator, match each function with its graph.

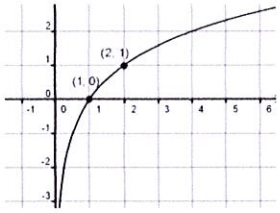
_____1. $f(x) = \log_2 x$ _____2. $f(x) = \log_2(-x)$ _____3. $f(x) = 2\log_2 x$

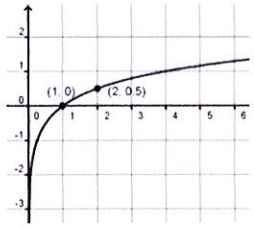
_____4. $f(x) = \frac{1}{2}\log_2 x$ _____5. $f(x) = 2\log_2(-x)$ _____6. $f(x) = -2\log_2 x$

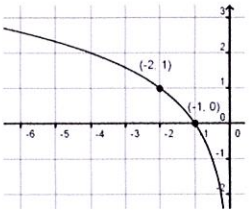
A. 

B. 

C. 

D. 

E. 

F. 

Graph without a calculator. Label the two anchor points and dash in the asymptote.

7. $f(x) = 3\log_{\frac{1}{3}} x + 2$

a = b = c = h = k = Domain:

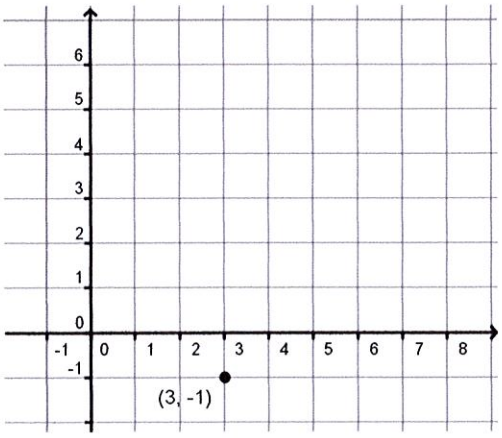
Asymptote: Range:

Transformations:

Parent		
(,0)		
(,1)		

Coordinates of the two anchor points:

(____, ____) and (____, ____)



8. $f(x) = -\log_3\left(-\frac{1}{3}x\right)$

a = b = c = h = k = Domain:

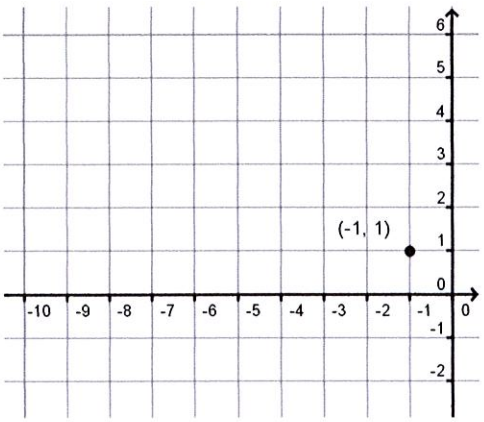
Asymptote: Range:

Transformations:

Parent		
(,0)		
(,1)		

Coordinates of the two anchor points:

(____, ____) and (____, ____)



9. $f(x) = -2\log_{\frac{1}{2}}(x-3) - 3$

a = b = c = h = k = Domain:

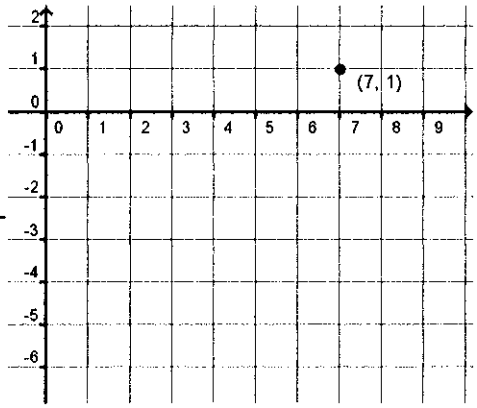
Asymptote: Range:

Transformations:

Parent			
(,0)			
(,1)			

Coordinates of the two anchor points:

(____, ____) and (____, ____)



10. $f(x) = -\log_3(3x-6)$

a = b = c = h = k = Domain:

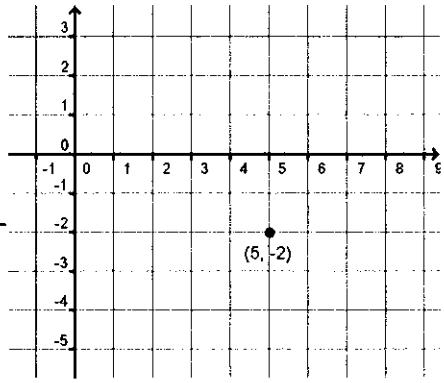
Asymptote: Range:

Transformations:

Parent			
(,0)			
(,1)			

Coordinates of the two anchor points:

(____, ____) and (____, ____)



11. $f(x) = 2\log_2(-x) + 5$

a = b = c = h = k = Domain:

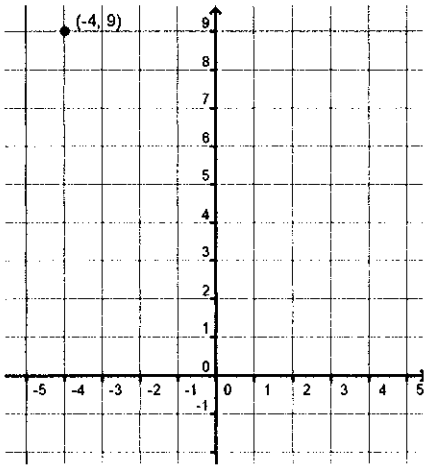
Asymptote: Range:

Transformations:

Parent			
(,0)			
(,1)			

Coordinates of the two anchor points:

(____, ____) and (____, ____)



12. $f(x) = \log_4(-4x-8) - 4$

a = b = c = h = k = Domain:

Asymptote: Range:

Transformations:

Parent			
(,0)			
(,1)			

Coordinates of the two anchor points:

(____, ____) and (____, ____)